

III. CLAIM AMENDMENTS

1-17. (Cancelled)

18. (New) A method for transmission of data packets in a packet-switched telecommunications system, the telecommunications protocol of which comprises a convergence protocol layer for converting user data packets into convergence protocol packets, and a link layer for transmitting convergence protocol packets as data units and for acknowledging the transmission, the method comprising the steps of:

defining a data packet number for the convergence protocol packets to be sent by a counter;

transferring the convergence protocol packets to be sent to the link layer for transmission;

defining a data packet number for received convergence protocol packets by a counter;

acknowledging the received convergence protocol packets;

adding the convergence protocol packet number defined by the transmitter's counter to the convergence protocol packet to be sent in response to performance of a predetermined process of the telecommunications system; and

updating the value of the receiver's counter to correspond to said convergence protocol packet number.

19. (New) A method according to claim 18, further comprising the steps of:

performing said adding of the convergence protocol packet number to a convergence protocol packet to be sent in the link layer at predetermined intervals in response to the link layer being unable to guarantee acknowledged transmission of the convergence protocol packets;

comparing the value of the receiver's counter with the convergence protocol packet number of the received convergence protocol packet; and

updating the value of the receiver's counter to correspond to said convergence protocol packet number in response to the values being unequal.

20. (New) A method according to claim 18, wherein said predetermined process of the telecommunications system is discard of a data packet or handover.

21. (New) A method according to claim 18, further comprising removing unacknowledged user data packets from the buffer in response to the fact that the receiver sends an acknowledgement to the transmitter of reception of a convergence protocol packet corresponding to the user data packet sent after the unacknowledged user data packets.

22. (New) A method according to claim 18, further comprising the step of performing said adding of the convergence protocol

packet number defined by the transmitter's counter to the convergence protocol packet that is first in the transmitter's buffer in response to the fact that at least one unacknowledged user data packet has been removed from the transmitter's buffer after the maximum value of retransmissions defined in the link layer has been exceeded.

23. (New) A method according to claim 18, wherein said telecommunications system is a packet-switched mobile communication system, such as the UMTS or the GPRS system, which utilizes acknowledged transmission.

24. (New) A method according to claim 23, wherein the method is applied in handover between the UMTS and the GPRS.

25. (New) A method according to claim 23, wherein the method is applied in handover between radio network subsystems in the UMTS.

26. (New) A packet-switched telecommunications system which comprises a terminal and a fixed network, which comprises a network element supporting packet-switched data transmission, data packets being arranged to be sent between the terminal and the network element in the telecommunications system and the telecommunications protocol of the telecommunications system comprising a convergence protocol layer for converting user data packets into convergence protocol packets, and a link layer for transmitting convergence protocol packets as data units and for acknowledging the transmission, whereby in the transmission of

data packets between the terminal and the network element the system is arranged to:

define, by means of a counter, a data packet number for the convergence protocol packets to be sent,

transfer the convergence protocol packets to be sent to the link layer for transmission,

define, by means of a counter, a data packet number for received convergence protocol packets,

acknowledge the received convergence protocol packets,

add the convergence protocol packet number defined by the transmitter's counter to the convergence protocol packet to be sent in response to performance of a predetermined process of the telecommunications system, and

update the value of the receiver's counter to correspond to said convergence protocol packet number.

27. (New) A telecommunications system according to claim 26, wherein the system is further arranged to:

add the convergence protocol packet data number defined by the transmitter's counter to the convergence protocol packet to be sent at predetermined intervals in response to the link layer being unable to guarantee acknowledged transmission of convergence protocol packets,

compare the value of the receiver's counter with the convergence protocol packet number of the received convergence protocol packet, and

update the value of the receiver's counter to correspond to said convergence protocol packet number in response to the values being unequal.

28. (New) A telecommunications system according to claim 26, wherein said predetermined process of the telecommunications system is discard of a data packet or handover.

29. (New) A telecommunications system according to claim 26, wherein the system is further arranged to remove unacknowledged user data packets from the buffer in response to the fact that an acknowledgement is sent from the receiver to the transmitter of reception of a convergence protocol packet corresponding to the user data packet sent after the unacknowledged user data packets.

30. (New) A telecommunications system according to claim 26, wherein said telecommunications system is a packet-switched mobile communication system, such as the UMTS or the GPRS system, which utilizes acknowledged transmission.

31. (New) A telecommunications system according to claim 30, wherein the system is further arranged to define, by means of a counter, the convergence protocol packet number in handover between the UMTS and the GPRS.

32. (New) A telecommunications system according to claim 30, wherein the system is further arranged to define, by means of a counter, the convergence protocol packet number in handover between radio network subsystems in the UMTS.

33. (New) A network element for a packet-switched telecommunication system, said network element being arranged to transmit data packets to a terminal supporting a packet-switched data transmission, said network element comprising:

means of a first counter for defining a data packet number for the convergence protocol packets to be transmitted between the network element and the terminal;

means for transferring the convergence protocol packets to be transmitted to the link layer to be transmitted;

means of a second counter for defining a data packet number for the received convergence protocol packets;

means for receiving acknowledgements of the received convergence protocol packets from said terminal; and

means, responsive to performance of a predetermined process of the telecommunications system, for adding the convergence protocol packet number defined by the first counter to the convergence protocol packet to be sent to the terminal for updating of the value of a terminal's counter to correspond to said convergence protocol packet number.

34. (New) A network element as claimed in claim 33, wherein said means for adding the convergence protocol packet number are arranged to add the convergence protocol packet data number defined by the second counter to the convergence protocol packet to be sent at predetermined intervals in response to the link layer being unable to guarantee acknowledged transmission of convergence protocol packets.

35. (New) A network element as claimed in claim 33, wherein said predetermined process of the telecommunications system is discard of a data packet or handover.

36. (New) A network element as claimed in claim 33, further comprising means for removing unacknowledged user data packets from a buffer in response to the fact that an acknowledgement is sent from the receiver to the transmitter of reception of a convergence protocol packet corresponding to the user data packet sent after the unacknowledged user data packets.

37. (New) A network element as claimed in claim 33, wherein the telecommunications system of said network element is a packet-switched mobile communication system, such as the UMTS or the GPRS system, which utilizes acknowledged transmission.

38. (New) A network element as claimed in claim 37, wherein the network element is further arranged to define, by means of a counter, the convergence protocol packet number in handover between the UMTS and the GPRS.

39. (New) A network element as claimed in claim 37, wherein the network element is further arranged to define, by means of a counter, the convergence protocol packet number in handover between radio network subsystems in the UMTS.

40. (New) A terminal for a packet-switched telecommunication system, said terminal being arranged to transmit data packets to a network element supporting a packet-switched data transmission, said terminal comprising:

means of a first counter for defining a data packet number for the convergence protocol packets to be transmitted between the terminal and the network element;

means for transferring the convergence protocol packets to be transmitted to the link layer to be transmitted;

means of a second counter for defining a data packet number for the received convergence protocol packets;

means for receiving acknowledgements of the received convergence protocol packets from said network element; and

means, responsive to performance of a predetermined process of the telecommunications system, for adding the convergence protocol packet number defined by the first counter to the convergence protocol packet to be sent to the network element for updating of the value of a network element's counter to correspond to said convergence protocol packet number.

41. (New) A terminal as claimed in claim 40, wherein said means for adding the convergence protocol packet number are arranged to add the convergence protocol packet data number defined by the second counter to the convergence protocol packet to be sent at predetermined intervals in response to the link layer being unable to guarantee acknowledged transmission of convergence protocol packets.

42. (New) A terminal as claimed in claim 40, wherein said predetermined process of the telecommunications system is discard of a data packet or handover.

43. (New) A terminal as claimed in claim 40, further comprising means for removing unacknowledged user data packets from a buffer in response to the fact that an acknowledgement is sent from the receiver to the transmitter of reception of a convergence protocol packet corresponding to the user data packet sent after the unacknowledged user data packets.

44. (New) A terminal as claimed in claim 40, wherein the terminal supports a packet-switched mobile communication system, such as the UMTS or the GPRS system, which utilizes acknowledged transmission.

45. (New) A terminal as claimed in claim 44, wherein the terminal is further arranged to define, by means of a counter, the convergence protocol packet number in handover between the UMTS and the GPRS.

46. (New) A terminal as claimed in claim 44, wherein the terminal is further arranged to define, by means of a counter, the convergence protocol packet number in handover between radio network subsystems in the UMTS.